

Office Action Summary	Application No. 10/762,941	Applicant(s) DARRELL ET AL.	
	Examiner Justin P. Misleh	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on December 18, 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9 - 28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9 - 28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>Interview Summary</u> . |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 18, 2009 has been entered.

Response to Arguments

2. Applicant's arguments filed December 18, 2009 have been fully considered but they are not persuasive.

3. With respect to Claims 9, 25, and 26, Applicant argues, "Applicants have amended the claims to make it clear that the present invention uses a database of image files with associated text and links, but in applicants invention the searching of files is done by searching the database using the image, where as Noda teaches taking an image, extracting characteristics of the image, use the extracted characteristics with user input of, for example, color of petals, shade of the color and type of flower, to search the database for like characteristics and returning an image that is associated with those like characteristic with a corresponding description. In other words, Noda is not searching the database using the image, but is searching the database by comparing the characteristics (See Figure 2)."

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4. The Examiner respectfully disagrees with Applicant's position. It appears that Applicant is alleging Claim 9 now recites that the captured image must be compared to the existing images in the database by image content alone (*i.e.*, without consideration of additional corresponding data attached to the image file). However, the Examiner respectfully notes Claim 9, both in lines 4 – 7 and 14 – 17, does not specify such a specific feature. In fact, there is no recitation of how the images are determined to be found similar.

5. The Examiner further notes Claim 9 interchangeably recites "image" and "image files." The Examiner respectfully notes there is a difference between comparing images and comparing image files. An example of an image file would be a JPEG image where the file consists of metadata and just plain image data, whereas an image is just plain image data with no corresponding data attached thereto.

6. Applicant further argues, "Nowhere does Aarnio teach, nor is it obvious based on reading Aarnio, that one could return images for matching. It is our reading that Aarnio only discloses OCR matching as a means for image comparison.

7. The Examiner respectfully disagrees with Applicant's position. OCR is a form analyzing the contents of an image. Therefore, Aarnio is performing image content based matching. Moreover, Aarnio teaches a method and apparatus for providing precise location information through a communications network (Figures 1 and 3). Aarnio further teaches that the database to be accessed is a computer network 18, which may be the Internet, or World Wide Web (column 2, lines 57-60), which includes several databases that can then be checked.

8. Finally, based on the structure and content of Applicant's arguments, it appears that Applicant is arguing in favor of features which are not claimed as specifically as the arguments

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suggest. Applicant is reminded, although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

9. For these reasons, the Examiner will maintain the prior art rejection.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. **Claims 9 – 24** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

12. With respect to independent Claim 9, line 13 recites “the database” when lines 5 and 12 each recite “a database.” It is not known whether the databases in lines 5 and 12 are the same databases or not. Therefore, simply referring to the “the database” Leaves Claim 9 indefinite.

13. With respect to dependent Claims 10 - 24, by virtue of their dependency upon Claim 9 are also indefinite.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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15. **Claims 9 – 22 and 24 – 28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Noda et al. in view of Aarnio (US 6,522,889).

NOTES: The Examiner notes **Claims 9, 25, and 26** appear to be related as apparatus, storage medium, and method respectively. Accordingly, these claims will grouped together under one rejection using the language of **Claim 9**. Furthermore, the Examiner's above-response is fully incorporated in the rejections below. Finally, the Examiner notes that the storage medium claimed in Claim 25 is not described in the specification. Claim 25 has been directed towards a storage medium since its original filling. To be clear as to whether the "storage medium" is directed towards statutory subject matter, a paragraph should be added to specification including the types of statutory storage mediums that can be included. The paragraph should be consistent with the remainder of the specification and should not include any new matter.

16. For **Claims 9, 25, and 26**, Noda et al. explicitly teach:

A system to provide location awareness services comprising:

(a) a handheld device (digital camera, PDA, PHS, Figure 1) comprising:

- (i) a camera to capture an image of an location (digital camera, Figure 1);
- (ii) a mobile communication device (PHS, Figure 1), coupled to the camera and to a wireless network (WWW sever, Figure 1), to communicate the image to a server having a database with existing image files to find similar images (page 25, abstract, lines 8-12) by locating and comparing the captured image with other existing images located in the database of existing image files; and

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(iii) a user interface (PDA, Figure 1), coupled to the mobile communication device, to communicate to an user any resulting relevant images and associated hyperlinks of found similar images (page 28, 3.5 and Figure 5); and

(b) a computer network including the wireless network (WWW server, Figure 1) and a wired network (flower database, Figure 2);

(c) a server (see Figure 1), connected to the computer network having a database to store images of interest; the database having the plurality of files, each file including an image, text and an associated link; and

(c) a plurality of computers (WWW server and flower database, Figure 1), each computer have a plurality of computer files in a format to display as a web page, each file including an image and textual information and connected to the computer network (process information files and flower information files respectively), at least one of the computer files having an associated hyperlink and including an image similar to the captured image and text describing an object in the image which when found by the server is added to the database (page 26, paragraph 3, lines 8-13, see also Figure 5).

The Examiner respectfully notes, as described by item 3 (Image Retrieval System of Flowers), Noda uses characteristics entered by a user to generate a binary image of the captured image (see 3.1), then calculates the characteristics of shape using a circularity measure (as defined by equation 1; see 3.2), then calculates the characteristics of color using a center of gravity calculation (see 3.3). Noda combines these characteristics into a table (see Table 1) and compares them to characteristics of other images in the database to find a match(s) (see 3.4).

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Once a match(s) is found, the image(s) is displayed on a webpage and the matched image(s) and URL of the webpage is sent to the user (see 3.5 and 2).

However, Noda et al. do not explicitly teach to search for additional images of interest located on other computers connected to the network when an image of interest is not located on the server.

On the other hand, Aarnio teaches a method and apparatus for providing precise location information through a communications network (Figures 1 and 3). Aarnio further teaches that the database to be accessed is a computer network 18, which may be the Internet, or World Wide Web (column 2, lines 57-60), which includes several databases that can then be checked.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the computer network found in Aarnio as the database in Noda et al. in order to pinpoint an exact location of the image by using the vast sources of the internet (column 1, lines 35-39).

17. As for **Claim 10**, Noda et al explicitly teach:

The system to provide location awareness services as recited in Claim 9 wherein the user interface comprises a display (PDA, browser Figure 1, see also Figure 5).

18. As for **Claim 11**, Noda et al explicitly teach:

The system to provide location awareness services as recited in Claim 9 wherein the user interface comprises a computer connection (PDA connects to computers wirelessly through PHS, Figure 1).

19. As for **Claim 12**, Noda et al. explicitly teach:

The system to provide location awareness services as recited in Claim 9 wherein the associated text describes features of the object in the image including geographical location of the object (page 28, 3.5).

20. As for **Claim 13**, Noda et al. explicitly teach:

The system to provide location awareness services as recited in Claim 9 wherein the associated text describes features of the object in the image including a description and historical facts regarding the object (page 28, 3.5).

21. As for **Claim 14**, Noda et al. explicitly teach:

The system to provide location awareness services as recited in Claim 9 wherein the associated text includes a uniform resource locator (URL) (Figure 5, the word detail is considered the URL because when it is clicked the web address corresponding to the link is opened and seen in Figure 6).

22. As for **Claim 15**, Noda et al explicitly teach:

The system to provide location awareness services as recited in Claim 9, wherein at least one of the computers includes a plurality of computer files having images of fields of interest (flower database Figure 1).

However, Noda et al. do not explicitly teach that the database has information of locations of interest located within a predetermined radius about a geographical location.

In the same field of endeavor, Aarnio teaches a method and apparatus for providing precise location information through a communications network (Figures 1 and 3). Aarnio

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further teaches a server service 24 that provides information to the user about the surroundings in the geographical region (column 4, lines 33-38).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the information about the geographical surroundings found in Aarnio into the images found in the database of Noda et al. in order to provide a convenience for the user such as in a case described in column 4, lines 38-43.

23. As for **Claim 16**, the combination of Noda et al. in view of Aarnio, as applied to claim 15, further teaches the system to provide location awareness services as recited in Claim 15 wherein the computer having a plurality of computer files having images of objects of interest located within a predetermined radius about a geographical location (column 4, lines 33-38, Aarnio) was previously trained to find common objects known to be of interest (page 26-28, 3-3.5 explains the finding of common images).

24. As for **Claim 17**, Noda et al. explicitly teach:

The system to provide location awareness services as recited in Claim 9 wherein at least one of the computers includes at least one computer file having an image of an object of known interest and an associated image of an object of less recognized interest within a predetermined radius about a geographical location of the known interest object (section 3.1 describes the extraction of the flower, which is the isolation of the image and at the same time the isolation of the surroundings, therefore it is inherent that the surroundings can be used to identify an object of less interest using the same methods describe in the experimentation with real images 4.1) to aid a user in finding the object of less recognized interest.

25. As for **Claim 18**, Noda et al. explicitly teach:

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The system to provide location awareness services as recited in Claim 9 wherein at least one of the computers includes at least one computer file having an image of an object of known interest and an associated image of an object of less recognized interest within the field of view of the known interest object (section 3.1 describes the extraction of the flower, which is the isolation of the image and at the same time the isolation of the surroundings, therefore it is inherent that the surroundings can be used to identify an object of less interest using the same methods describe in the experimentation with real images 4.1) to aid a user in finding the object of less recognized interest.

26. As for **Claim 19**, Noda et al explicitly teach the system to provide location awareness services as recited in Claim 9, which includes at least one computer (flower database Figure 1).

However, Noda et al. do not teach that the computer has the capability of searching other computers to find matching files.

In the same field of endeavor, Aarnio teaches a method and apparatus for providing precise location information through a communications network (Figures 1 and 3). Aarnio further teaches that the database to be accessed is a computer network 18, which may be the Internet, or World Wide Web (column 2, lines 57-60), which includes several computers that can then be checked.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the computer network found in Aarnio as the database in Noda et al. in order to pinpoint an exact location of the image by using the vast sources of the internet (column 1, lines 35-39).

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27. As for **Claim 20**, the combination of Noda et al. in view of Aarnio, as applied to claim 19, further teaches that the text that is found describing a matching image is communicated to the handheld device (page 25, 2.1, end of second paragraph).

28. As for **Claim 21**, the combination of Noda et al. in view of Aarnio, as applied to claim 19, further teaches that the text is returned to the computer that began the search (Figure 4, in Aarnio, shows that the information that is found is returned to the mobile system, which is the computer that began the search).

29. As for **Claim 22**, the combination of Noda et al. in view of Aarnio, as applied to claim 21 above further teaches the system to provide location awareness services as recited in Claim 21 wherein the computer that initiated the search is capable of comparing the original image with images returned in the computer file having text matching the associated text describing the object in the image (see figures 5 and 6, the PDA provides the user with the comparison of images that resulted from the original computer, database, to the image).

30. As for **Claim 24**, the combination of Noda et al. in view of Aarnio, as applied to claim 19, further teaches the system to provide location awareness services as recited in Claim 19 wherein at least one of the computers includes at least one computer file having an image of an object of known interest and an associated image of an object of less recognized interest within the field of view of the known interest object (section 3.1 describes the extraction of the flower, which is the isolation of the image and at the same time the isolation of the surroundings, therefore it is inherent that the surroundings can be used to identify an object of less interest using the same methods describe in the experimentation with real images 4.1) to aid a user in

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finding the object of less recognized interest all located within a predetermined radius about a geographical location.

31. As for **Claim 27**, Noda et al. explicitly teach: The method for identifying a location as recited in Claim 26 wherein the comparing step includes comparing at least one of energy spectrum data, color histogram data, primitive filter data, and local invariant data (pages 26-38, 3-3.4 mentions color characteristic extraction).

32. As for **Claim 28**, Noda et al. explicitly teach: The method for identifying a location as recited in claim 26 wherein the comparing step comprises at least one of the techniques including a least square matching technique, a normalizing the image technique, an eigen value technique, a matching histogram of image feature technique and an image matching engine with transformation technique (pages 27-28, 3.4).

33. **Claim 23** is rejected under 35 U.S.C. 103(a) as being unpatentable over Noda et al. in view of Aarnio (US 6,522,889) and further in view of Reed (US 2005/0113113 A1).

34. As for **Claim 23**, the combination of Noda et al. in view of Aarnio teaches the system to provide location awareness services as recited in Claim 15.

However, the combination does not explicitly teach that the system includes a GPS system receiver to identify the geographical location of the mobile communication device and help eliminate non-useful images.

On the other hand, Reed teaches an enhance wireless phone (Figure 2). Reed further teaches that this wireless phone has a GPS system 26, which is described in paragraph [0114].

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The GPS system locates the user and inherently would provide coordinates that could narrow down the image matching process.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the GPS capabilities of the mobile phone found in Reed into the system found in the combination of Noda et al. in view of Aarnio in order to pinpoint exact locations and provide the user with the ease of mind of always knowing their location.

Cited Prior Art

35. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure for the following reasons:

- **US 7,043,474 B2** discloses a computer-implemented method for characterizing, annotating and determining image similarity based on semantic meaning of images.
- **US 6,504,571 B1** discloses a system and method for querying digital image archives containing digital photographs and/or videos, where the digital images are indexed in accordance with image data such as lens focal length, auto focus distance, shutter speed, exposure duration, aperture setting, frame number, image quality, flash status and light meter readings, which are used for searching a database consisting of the digital images.
- **US 6,463,426 B1** discloses an image processing system which can rapidly match a primary image to a target image – each feature module defines particular regions of an image and particular measurements to make on pixels within the defined image region as well as the measurements to make on neighboring pixels in neighboring image regions for a given application.

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- **US 7,099,860 B1** discloses an image retrieval system performs both keyword-based and content-based image retrieval.
- **US 5,852,823** discloses an apparatus and method for generating a semantically based, linguistically searchable, numeric descriptor of a pre-defined group of input images.

Conclusion

36. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Justin P. Misleh whose telephone number is (571) 272-7313. The Examiner can normally be reached Monday - Friday between 8:30 AM - 3:30 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, David L. Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**/Justin P. Misleh/
Primary Examiner, Group Art Unit 2622
February 2, 2010**